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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,702	08/18/2003	Vivek Jaiswal	P16507	4365

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EXAMINER
PATEL, CHIRAG R

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2141	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/642,702	JAISWAL ET AL.
	Examiner	Art Unit	
	Chirag R. Patel	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final..

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

Claim Objections

Claims 17-18 objected to because of the following informalities: As per claims

17-18 claim "the networked system of claim 14" and claim 14 , from which it depends

upon, recite "a session initiation protocol device". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ton

(US 2002/0067704) in view of O'Neill et al. – hereinafter O'Neill (US 6,790,445).

As per claim 1, Ton discloses a method of communicating load, comprising:

determining a load on a first node; ([0043])

factoring the load into a Q-value for the first node; ([0042])

and transmitting the Q-value to a second node. ([0043])

Ton fails to disclose session initiation protocol. O'Neill discloses session

initiation protocol. (Col 1 line 65 – Col 2 line 33)   At the time the invention was

made, it would have been obvious to a person of ordinary skill in the art to disclose

session initiation protocol in the disclosure of Ton. The motivation for doing do would

have been to assist in session establishment, enforce policies, or support user agent

mobility. SIP mobility support mechanisms allow a user agent to maintain reachability by registering its present location information with a SIP server in its home network and to support services such as Voice over IP in cellular data network. (Col 1 line 65 – Col 2 line 33).

As per claim 2, Ton/ O'Neill disclose the method of claim 1. Ton further comprising the first node subscribing to a load factor exchange service in a message transmitted to the second node. ([0043],[0049])

As per claim 3, Ton/O'Neill disclose the method of claim 2. Ton discloses further comprising the second node confirming receipt of the subscription in a message transmitted to the first node. ([0043],[0049])

As per claim 4, Ton/O'Neill disclose the method of claim 1. Ton discloses further comprising: a third node requesting the Q-value for the first node from the second node; and the second node transmitting the Q-value for the first node to the third node. ([0043],[0049])

As per claim 5, Ton/O'Neill disclose the method of claim 4. Ton discloses wherein the second node also transmits Q-values for a plurality of alternate nodes to the third node. ([0043],[0049])

As per claim 6, Ton/O'Neill disclose the method of claim 5. Ton discloses further comprising the third node utilizing the one of the first node and the alternate nodes having the lowest Q-value as an intermediate node. ([0025])

As per claim 7, Ton disclose an article of manufacture, comprising: a computer readable medium having stored thereon instructions which, when executed by a processor, cause the processor to:

determine a load on a first node and a load on a second node; ([0043],[0049])

factor the load for at least one of the first node and the second node into a Q-value; and ([0042])

direct a transmitting node to relay information through one of the first node and the second node based on the load factor. ([0025])

Ton fails to disclose session initiation protocol. O'Neill discloses session initiation protocol. (Col 1 line 65 – Col 2 line 33)   At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose session initiation protocol in the disclosure of Ton. The motivation for doing do would have been to assist in session establishment, enforce policies, or support user agent mobility. SIP mobility support mechanisms allow a user agent to maintain reachability by registering its present location information with a SIP server in its home network and to support services such as Voice over IP in cellular data network. (Col 1 line 65 – Col 2 line 33).

As per claim 8, Ton / O'Neill disclose the article of manufacture of claim 7. Ton discloses wherein the instructions are to cause the processor to transmit the load for the first node and the load for the second node to the transmitting node in the session initiation protocol Q-value. ([0043],[0049])

As per claim 9, Ton/ O'Neill disclose the article of manufacture of claim 8. Ton discloses wherein the transmitting node is to transmit the information to the least loaded of the first node and the second node. ([0040])

As per claim 10, Ton / O'Neill disclose the article of manufacture of claim 7. Ton discloses wherein the instructions are to cause the information to be redirected from the first node to the second node when the second node becomes less loaded than the first node. ([0045])

As per claims 11 and 16, Ton / O'Neill disclose the article of manufacture of claim 7. Ton discloses wherein load is based on at least one metric including call capacity of the first and second nodes, processing capability of the first and second nodes, network bandwidth at the first and second nodes, and network availability of the first and second nodes. ([0042])

As per claims 12 and 17, Ton/ O'Neill disclose the article of manufacture of claim 11. Ton discloses wherein the metrics of the first and second nodes are weighted based on the capacity of the nodes for that metric. ([0042])

As per claim 13, Ton/ O'Neill disclose the article of manufacture of claim 7. Ton discloses wherein the instructions are further to cause the processor to receive a subscription from the transmitting node and at least one second transmitting node, and wherein the load for at least one of the first node and the second node is caused to be transmitted to subscribing nodes upon request. ([0043],[0044])

As per claim 14, Ton discloses a session initiation protocol device, comprising:

a network adaptor coupled to a network; ([0009])

and a calculation module to provide load information for at least one of the session initiation protocol entities to a querying entity through the network adaptor. ([0042],[0043])

Ton fails to disclose a session initiation protocol load module to receive session initiation protocol load information from session initiation protocol entities on the network through the network adaptor. O'Neill discloses a session initiation protocol load module to receive session initiation protocol load information from session initiation protocol entities on the network through the network adaptor. (Col 1 line 65 – Col 2 line 33)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose a session initiation protocol load module to receive session

initiation protocol load information from session initiation protocol entities on the network

through the network adaptor in the disclose of Ton. The motivation for doing do would

have been to assist in session establishment, enforce policies, or support user agent

mobility. SIP mobility support mechanisms allow a user agent to maintain reachability by

registering its present location information with a SIP server in its home network and to

support services such as Voice over IP in cellular data network. (Col 1 line 65 – Col 2

line 33).

As per claim 15, Ton/ O'Neill disclose the session initiation protocol device of

claim 14. Ton discloses wherein the calculation module is furthermore to provide loads

for a plurality of session initiation protocol entities to the querying entity. ([0043],[0049])

As per claim 18, Ton/ O'Neill disclose the networked system of claim 14. Ton

discloses wherein the load of the session initiation protocol entity is transmitted to the

querying entity as a factor in a Q-value. ([0043],[0049])

As per claim 19, Ton discloses

A data storage device to contain a cross reference and a load factor ([0042]-

[0043],[0049])

a network adaptor coupled to the network; and ([0009]) a processor coupled to

the data storage device and the network adaptor. ([0009],claim 26.

Ton fails to disclose a session initiation protocol entities. O'Neill discloses

session initiation protocol entities. O'Neill discloses session initiation protocol entities.

(Col 1 line 65 – Col 2 line 33)   At the time the invention was made, it would have

been obvious to a person of ordinary skill in the art to disclose session initiation protocol

entities in the disclosure of Ton. The motivation for doing do would have been to assist

in session establishment, enforce policies, or support user agent mobility. SIP mobility

support mechanisms allow a user agent to maintain reachability by registering its

present location information with a SIP server in its home network and to support

services such as Voice over IP in cellular data network. (Col 1 line 65 – Col 2 line 33).

As per claim 20, Ton / O'Neill discloses the location service of claim 19. Ton fails

discloses wherein the processor is to retrieve the load factor associated with at least

one of the session initiation protocol entities when requested to do so by a requesting

session initiation protocol entity and transmit that load information to the requesting

session initiation protocol entity through the network adaptor.   ([0043],[0049])

As per claim 21, Ton/ O'Neill disclose the location service of claim 20, wherein

the load factor is transmitted as a factor in a Q-value. ([0042])

As per claim 22, Ton discloses load broker coupled to a network to gather load

information coupled to the network and calculate a load factor for those session

initiation protocol entities; and ([0043],[0049])

a location service to maintain a cross reference to addresses for the session

initiation protocol entities coupled to the network and associate the addresses to the

load factors obtained from the load broker. ([0013],[0036])

Ton fails to disclose session initiation protocol entities. O'Neill discloses session

initiation protocol entities. (Col 1 line 65 – Col 2 line 33)   At the time the invention

was made, it would have been obvious to a person of ordinary skill in the art to disclose

session initiation protocol entities in the disclosure of Ton. The motivation for doing do

would have been to assist in session establishment, enforce policies, or support user

agent mobility. SIP mobility support mechanisms allow a user agent to maintain

reachability by registering its present location information with a SIP server in its home

network and to support services such as Voice over IP in cellular data network. (Col 1

line 65 – Col 2 line 33).

As per claim 23, Ton/O'Neill disclose the session initiation protocol load

balancing system of claim 22. Ton discloses wherein the location service is to retrieve

the load factor associated with at least one of the session initiation protocol entities

when requested to do so by a requesting session initiation protocol entity and transmit

that load information to the requesting session initiation protocol entity. ([0043],[0049])

As per claim 24, Ton/O'Neill disclose the session initiation protocol load

balancing system of claim 23. Ton discloses wherein the load factor is transmitted as a

factor in a Q-value. ([0042])

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Park et al. (US 2004/0088424) disclose SIP based load balancing apparatus and method. A close review of these references is recommended.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag R. Patel whose telephone number is (571)272-7966. The examiner can normally be reached on Monday to Friday from 7:30AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER